

# Product data sheet

Specifications



single phase relay, Harmony Solid State Relays, 125A, panel mount, zero voltage switching, thermal pad, input 4 to 32V DC, output 48 to 660V AC

SSP1A4125BDT

**Product availability:** Stock - Normally stocked in distribution facility

## Main

|                           |                                      |
|---------------------------|--------------------------------------|
| Range of Product          | Harmony Solid State Relays           |
| Provided accessory        | Thermal pad                          |
| Product or Component Type | Panel mount relay                    |
| Device short name         | SSP1                                 |
| Mounting Support          | Panel                                |
| Number of phases          | 1 phase                              |
| Line Rated Current        | 125 A                                |
| Solid state output type   | Zero voltage switching<br>SCR output |
| Output switching mode     | Zero voltage switching               |

## Complementary

|                                     |  |
|-------------------------------------|--|
| test button                         | Without test button  |
| [Uc] control circuit voltage        | 4...32 V DC  |
| Minimum switching voltage           | 4 V DC turn-on   |
| Maximum switching voltage           | 1 V DC turn-off  |
| Response time                       | 0.5 cycle (turn-on)<br>0.5 cycle (turn-off)  |
| Input current                       | 7...12 mA  |
| Output voltage                      | 48...660 V AC  |
| Load current                        | 0.15...125 A   |
| Transient overvoltage               | 1200 V   |
| Surge current                       | 1750 A 16.6 ms   |
| Maximum I <sup>2</sup> t for fusing | 12709 A <sup>2</sup> .s for 8.33 ms at 60 Hz<br>13950 A <sup>2</sup> .s for 10 ms at 50 Hz         |
| Co-ordination type                  | Type 1 - 80 A miniature circuit breaker (MCB) B<br>Type 2 - 63 A miniature circuit breaker (MCB) B |
| Maximum leakage current             | 1 mA off-state   |
| Maximum voltage drop                | <1.15 V on-state   |
| DV/dt                               | 500 V/μs off-state at maximum voltage  |
| Power factor                        | 0.5 (with maximum load)  |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

|  |   |
|--|---|
| <b>Motor controller rating</b>                 | 2 hp 120 V AC<br>5 hp 240 V AC<br>10 hp 480 V AC  |
| <b>Insulation resistance</b>                   | 1000 MOhm at 500 V DC   |
| <b>Maximum capacitance</b>                     | 8 pF for input/output   |
| <b>Dielectric strength</b>                     | 4 kV AC for input/output<br>4 kV AC for input or output to case   |
| <b>[Uiimp] rated impulse withstand voltage</b> | 6 kV output to case<br>6 kV input to output   |
| <b>Tightening torque</b>                       | 1.5...1.7 N.m for input<br>2...2.2 N.m for output   |
| <b>Connections - terminals</b>                 | Screw terminals 0.2...3.3 mm <sup>2</sup> , AWG 24...AWG 12) with cable end input<br>Screw terminals 0.5...5.26 mm <sup>2</sup> , AWG 20...AWG 10) with cable end output<br>Screw terminals 0.2...3.3 mm <sup>2</sup> , AWG 24...AWG 12) without cable end input<br>Screw terminals 0.5...8.26 mm <sup>2</sup> , AWG 20...AWG 8) without cable end output<br>Forked type tag connectors 9.2 x 4 mm input<br>Ring lugs 9.2 x 4 mm input<br>Forked type tag connectors 11.7 x 4.5 mm output<br>Ring lugs 11.7 x 4.5 mm output |
| <b>Thermal resistance</b>                      | 0.22 °C/W junction to case  |
| <b>thermal pad impedance</b>                   | 0.48 °C-in <sup>2</sup> /W at 25 psi  |
| <b>LED indicator</b>                           | LED, green input  |
| <b>IP degree of protection</b>                 | IP20  |
| <b>Safety reliability data</b>                 | MTTFd = 1875.9 years<br>B10d = 1731395  |
| <b>Product Weight</b>                          | 3.1 oz (89.2 g)   |
| <b>Device presentation</b>                     | Complete product  |

## Environment

|  |  |
|--|--|
| <b>Ambient Air Temperature for Operation</b> | -40...176 °F (-40...80 °C)                               |
| <b>Ambient Air Temperature for Storage</b>   | -40...257 °F (-40...125 °C)                              |
| <b>Pollution degree</b>                      | 2  |
| <b>Overvoltage category</b>                  | III  |
| <b>Product Certifications</b>                | CSA<br>CE<br>UL<br>EAC                                   |
| <b>Marking</b>                               | CSA<br>UL<br>CE<br>EAC                                   |
| <b>Standards</b>                             | IEC 60950-1<br>IEC 62314<br>CSA C22.2 No 14-13<br>UL 508 |

## Ordering and shipping details

|                          |               |
|--------------------------|---------------|
| <b>Category</b>          | US10CP222375  |
| <b>Discount Schedule</b> | OCP2          |
| <b>GTIN</b>              | 3606485442105 |
| <b>Returnability</b>     | Yes           |
| <b>Country of origin</b> | MX            |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Nbr. of units in pkg.        | 1                       |
| Package 1 Height             | 1.50 in (3.800 cm)      |
| Package 1 Width              | 1.89 in (4.800 cm)      |
| Package 1 Length             | 2.56 in (6.500 cm)      |
| Package weight(Lbs)          | 3.598 oz (102.000 g)    |
| Unit Type of Package 2       | S01                     |
| Number of Units in Package 2 | 30                      |
| Package 2 Height             | 5.91 in (15.000 cm)     |
| Package 2 Width              | 5.91 in (15.000 cm)     |
| Package 2 Length             | 15.75 in (40.000 cm)    |
| Package 2 Weight             | 7.275 lb(US) (3.300 kg) |



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

|  |   |
|--|---|
| Carbon footprint (kg CO2 eq, Total Life cycle) | 13038   |
| Environmental Disclosure                       | <a href="#">Product Environmental Profile</a> |

### Use Better

#### Materials and Substances

|  |  |
|--|--|
| Packaging made with recycled cardboard | Yes  |
| Packaging without single use plastic   | Yes  |
| <a href="#">EU RoHS Directive</a>      | Pro-active compliance (Product out of EU RoHS legal scope)   |
| SCIP Number                            | 134201bc-d293-4667-9cca-10a7f11729e0   |
| California proposition 65              | <b>WARNING:</b> This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="#">www.P65Warnings.ca.gov</a> |

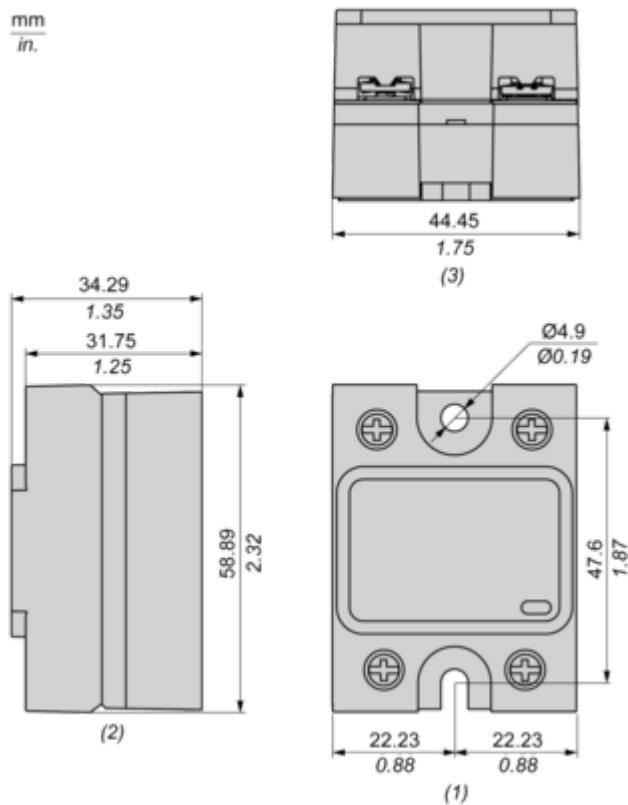
### Use Again

#### Repack and remanufacture

|                     |   |
|---------------------|---|
| Circularity Profile | <a href="#">End of Life Information</a> |
| Take-back           | No                                      |

## Dimensions Drawings

## Dimensions



(1) Front view

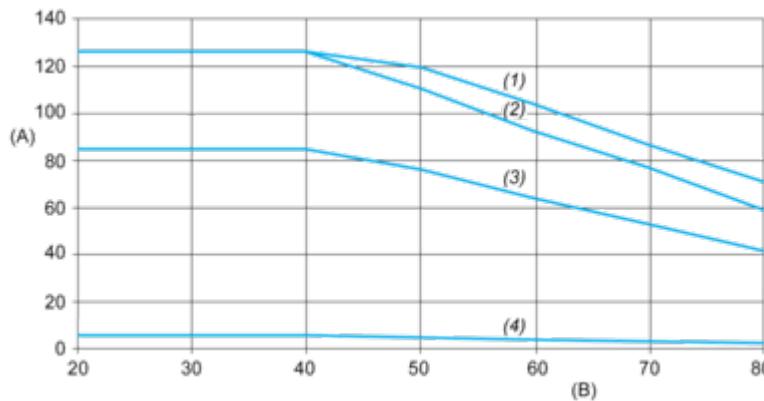
(2) Side view

(3) Bottom view

## Performance Curves

Derating Curves

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**A** : Load Current (Amps)

**B** : Ambient Temperature (°C)

(1) For Heatsink SSRHP02

(2) For Heatsink SSRHP05

(3) For Heatsink SSRHP07

(4) No Heatsink

## Technical Illustration

## Dimensions

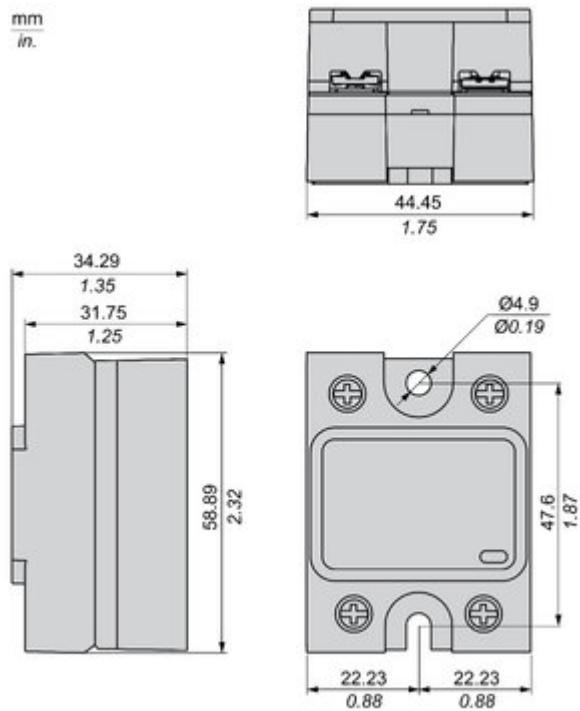
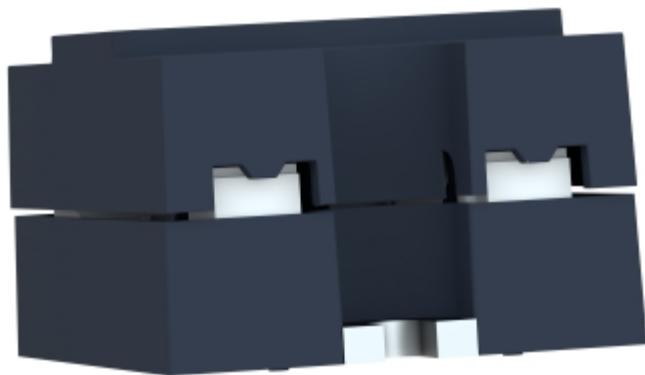
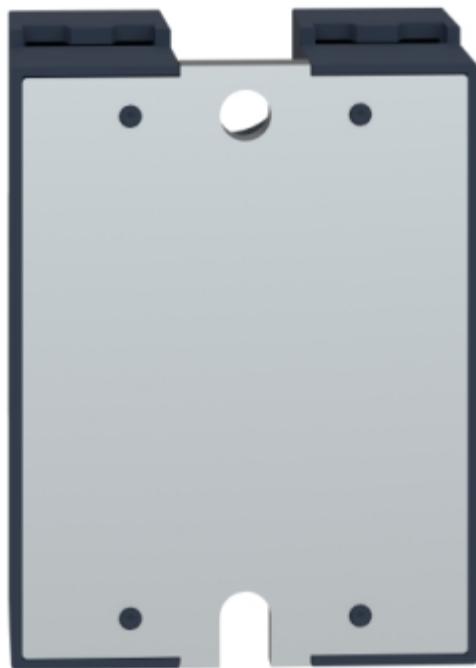


Image of product / Alternate images

Alternative

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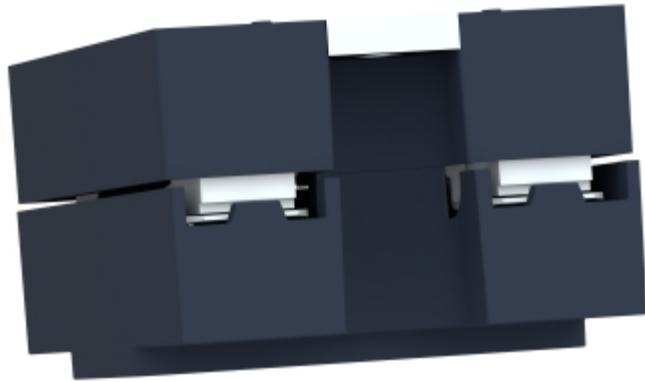


Image of product in real life situation

